



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/608,937

06/27/2003

Andrea Piva

35826

6954

116

7590

12/01/2006

PEARNE & GORDON LLP  
1801 EAST 9TH STREET  
SUITE 1200  
CLEVELAND, OH 44114-3108

EXAMINER

SAYALA, CHHAYA D

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/608,937

Applicant(s)

PIVA ET AL.

Examiner

C. SAYALA

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 3-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the claims, "'chosen among" should be changed to the more conventional "selected from the group consisting of".

"Natural-similar" is not only grammatically incorrect, but unclear. Does this mean "synthetic" or "similar to natural" or something else? Furthermore, it is unclear by this language what compounds are meant to be claimed as applicant's property.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over), Raczek et al. (US Pub. No. 2002/0086090) in view of Blagdon et al. (US Patent 5496571) and further in view Ueno et al. (US Patent 3692534) and Piva et al. (Livestock Production Sci., vol. 51, pages 53-61, 1997).

Raczek et al. disclose a mixture of organic acids and salts as well as inorganic acids, for pig husbandry as known in prior art. See the examples and paragraph [0014]. The patent also teaches that these compositions are unstable. The patent does not teach aromatizing agents or encapsulating the composition in lipids or the details of claim 7. Note that paragraph [0009] teaches that acids overcome the buffering capacity of feeds and that the acids pose the problem of being disadvantageous by their sensory properties. To overcome this, the acids are impregnated in salts.

Blagdon et al. teach encapsulating materials such as edible acids that are shown at col. 4, lines 62+ and that include those claimed, with fats such as those listed at col. 3, line 64 to col. 4, line 25 and that are also claimed herein. The patent also teaches including salts, flavors and essential oils in the core. See col. 4, line 34. The core material is said to be in an amount of between 1 to about 35% by weight of the microcapsule. See col. 4, lines. Note too, that the mixture of the composition is sprayed into a chill tower. Col. 6. Claims 14-15 teach sizes of the capsules and amounts of core material.

Even though Blagdon et al. teach the same composition for controlled release in the ruminant, the core material is liquid in nature. However, Ueno et al. disclose that it was known in the art at the time the invention was made to encapsulate the same organic acids and their salts in solid form, in lipid material as claimed. (Note that the instant claims do not stipulate that such acids are solid or in a single phase). Moreover, Piva et al. teach that microencapsulation was known to be applied to a wide variety of compounds for a variety of reasons including slow release, with long-chain fatty acids,

Art Unit: 1761

but that the effects of such encapsulation on the absorption and bioavailability of nutrients and drugs were studied with respect to pigs and report their findings that suggest that microencapsulation delays absorption *without* affecting the bioavailability of the protected compounds (abstract).

It would have been obvious to encapsulate the materials of Raczek et al. as shown by Blagdon et al., the motivation being based on Piva et al. and suggested by Ueno et al. who teach encapsulating *solid* materials of the same type, with the same lipids. Particularly, when Raczek et al. point out that the acids compromise sensory properties, it would have been obvious to combine them with essential oils, and when they disclose that the acids have a tendency to be unstable, then it would have been obvious to encapsulate them as shown by Blagdon et al. and Ueno et al. and based on Piva et al. that teach that such encapsulating does not affect the bioavailability of compounds in pigs, that microencapsulation of a wide variety of compounds with fatty acids in relation to pigs was already known in the art.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-20 have been considered but are moot in view of the new ground(s) of rejection.

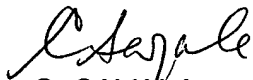
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

Art Unit: 1761

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. SAYALA  
Primary Examiner  
Group 1700.